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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/768,072

01/23/2001

Liam B. Quinn

16356.746

2497

27683 7590 09/20/2012

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IP Section

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EXAMINER

LU, ZHIYU

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

09/20/2012

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/768,072	Applicant(s) QUINN ET AL.	
	Examiner ZHIYU LU	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-5,8-13,15,17 and 19-25 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-5,8-13,15,17 and 19-25 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/09/2012 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 8, 15, 17 and 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moon et al. (US6804532).

To claim 1, Mon teach a wireless computing system, comprising:

a first transceiver that supports wide area network wireless communications;

a second transceiver that supports local area network wireless communications;

a third transceiver that supports personal area network wireless communications;

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an antenna system that is operable to enable communications using any of the first transceiver, the second transceiver, and the third transceiver; and

a selector coupled between the antenna system and each of the first transceiver, the second transceiver, and the third transceiver, wherein the selector is operable to connect one of the first transceiver, the second transceiver, and the third transceiver to the antenna system (column 6 line 42 to column 7 line 14, the mobile station capable of selecting and communicating with one or more communication networks, wherein multiple transceivers may share a single antenna, which a selector/switch coupled between antenna and transceivers obviously presents for selecting capability).

To claim 15, Moon teach a method for providing wireless communication as explained in response to claim 1 above.

To claim 22, Moon teach a mobile computer as explained in response to claim 1 above.

To claims 2, 17 and 23, Moon teach claims 1, 15 and 22.

Moon teach wherein the selector is operable to connect the one of the first transceiver, the second transceiver, and the third transceiver to the antenna system to enable communications based upon a power associated with transmitting the communications (column 10 lines 20-49, power requirement decides routing metric, which decides which network and transceiver to enable for communication, which leads to selector operation).

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To claims 3, 19 and 24, Moon teach claims 1, 15 and 22.

Moon teach wherein the selector is operable to connect the one of the first transceiver, the second transceiver, and the third transceiver to the antenna system to enable communications based upon a power associated with receiving the communications (column 10 lines 20-49, reception power is part of link quality measurement that affects decision on routing and network selection).

To claims 4, 20 and 25, Moon teach claims 1, 15 and 22.

Moon teach wherein the first transceiver is operable at a first operating frequency and at least one of the second transceiver and the third transceiver is operable at a second frequency that is different from the first frequency (column 7 lines 1-7).

To claims 5 and 21, Moon teach claims 1 and 15.

Moon teach wherein the first transceiver is operable at a first operating frequency, the second transceiver is operable at a second operating frequency that is different from the first operating frequency, and the third transceiver is operating at a third operating frequency that is different from each of the first operating frequency and the second operating frequency (column 7 lines 1-7).

To claim 8, Moon teach claim 1.

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Moon teach wherein the antenna system includes a single antenna that supports each of the first transceiver, the second transceiver, and the third transceiver (column 7 lines 13-14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moon et al. (US6804532) in view of Gatherer et al. (US2002/0065058).

To claim 9, Moon teach claim 1.

Moon does not expressly disclose wherein the antenna system includes a plurality of antennas that support each of the first transceiver, the second transceiver, and the third transceiver.

Gatherer teach an antenna array that is capable of connect with any RF front end section (Fig. 2, paragraphs 0023, 0026, 0044), which would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the apparatus of Moon, for antenna design preference.

4. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon et al. (US6804532).

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To claim 10, Moon teach claim 1.

Moon teach wherein the selector is operable to connect the one of the first transceiver, the second transceiver, and the third transceiver to the antenna system to enable communications based upon instructions from an operating system stack (column 10 lines 20-49, selection is based on instruction to use routing metric to decide route periodically, which leads to transceiver selection).

To claim 11, Moon teach claim 1.

Moon teach wherein the selector is operable to connect the one of the first transceiver, the second transceiver, and the third transceiver to the antenna system to enable communications based upon a predetermined priority (column 10 lines 34-49, power consumption is taking into consideration of selection, obvious as predetermined priority based on battery power consumption, take official notice on this common power saving technique).

To claim 12, Moon teach claim 11.

Moon teach wherein the predetermined priority is based on transceiver power consumption (as explained in response to claim 11 above).

To claim 13, Moon teach claim 11.

Moon teach wherein the predetermined priority is based on communication costs (column 10 lines 34-49, communication quality and power requirement are all considered as communication costs).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZHIYU LU whose telephone number is (571)272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zhiyu Lu
Primary Examiner
Art Unit 2618

/Zhiyu Lu/
Primary Examiner, Art Unit 2618
September 18, 2012